THE JOURNAL
of the
South Carolina Medical Association

VOLUME XXXV AUGUST, 1939 NUMBER 8

The Management of Some Problems of Thoracic Surgery

FRANK P. COLEMAN, M. S., M. D., COLUMBIA, S. C.

It has become conventional and practical to divide the field of chest surgery into surgery of non-tuberculous chest diseases, and surgery of pulmonary tuberculosis.

PULMONARY TUBERCULOSIS

This disease not only offers the thoracic surgeon, medical tuberculosis expert, and above all you who encounter pulmonary tuberculosis daily in your medical practice a serious responsibility, but it is still the most difficult health problem that confronts this state and the nation.

Tuberculosis is the cause of death in more individuals between the ages of 15 and 45 years than any other disease. There are more than 9,000 active cases of pulmonary tuberculosis in South Carolina today, and last year 962 people in this state died from this disease. 80 per cent of the patients admitted to the South Carolina State Sanatorium are classified as far advanced.

The surgical treatment of pulmonary tuberculosis has made rapid progress in the past ten years, for in 1928 few physicians were using any of the known types of collapse therapy. In 1934 the American Medical Association made a survey of Sanatoria in general and issued a report relative to 67,000 patients. 20 per cent of these patients were receiving some method of collapse therapy. Only 17 per cent were arrested or apparently arrested of their disease. In 1937, Leslie and Anderson[1] made a similar review, covering a five year period in a sanatorium where early and intensive collapse therapy was being used. During this period, 1,124 patients were hospitalized and 79 per cent received collapse therapy. 72 per cent of the patients receiving this form of treatment were arrested or apparently arrested of their disease.

Approximately 80 per cent of patients admitted to sanatoria are in need of some form of collapse therapy. At the present time, there are fourteen distinct operative procedures used in bringing about a collapse or rest to the diseased area of the lung. Only brief reference will be made to the most important measures of surgical collapse.

The simplest of all collapse surgical procedures is a phrenic nerve interruption, either permanent or temporary, resulting in a paralysis of the diaphragm. A temporary phrenic nerve paralysis is a revocable procedure. If the rise of the diaphragm does not accomplish the desired effect, the nerve will regenerate in from 6 to 9 months, and such a procedure will not interefere with a future recommendation. This form of collapse therapy has been abused. Too many permanent phrenics have robbed a large number of patients of some other treatment that has a good chance of restoring their health. The indications for a paralysis of the diaphragm are numerous,

Read before the South Carolina Medical Association, Spartanburg, S. C., April 12, 1939.

and in properly selected cases a good result can be expected.

Pneumothorax patients are handled as a rule by the internist. 50 per cent of all patients with pulmonary tuberculosis receiving collapse therapy are receiving this form of treatment. In patients where pneumothorax is indicated it is impossible to obtain an intrapleural space in 20 per cent of them. In other cases it is possible to obtain an intrapleural space, but due to the presence of vicero-parietal adhesions or some other factor the pneumothorax is considered to be ineffective in that a cavity remains open or the sputum continues to be positive. An ineffective pneumothorax without any possibilities of being made effective is a treacherous "disease" in itself. Air should be abandoned in these cases and some other collapse procedure substituted.

Approximately 30 per cent to 40 per cent of the cases receiving pneumothorax will require a closed intrapleural pneumonolysis to make the pneumothorax effective. This operative procedure is carried out by the insertion of a thoracoscope (an instrument similar in design to a cystoscope) through an intercostal space into a partial pneumothorax. Through another intercostal space the cautery is inserted through a cannula and the adhesions are divided under direct vision. Three months should elapse in general during which time the pneumothorax is continued, prior to a division of the adhesions.

In a group of patients where a pneumothorax fails and where an unstable lesion contraindicates a thoracoplasty an extrapleural pneumonolysis is carried out, filling the extrapleural space with air. This method of collapse therapy, extrapleural pneumothorax, is rapidly gaining for itself an important place in the treatment of pulmonary tuberculosis. In other cases where a thoracoplasty is indicated, but the age of the patient, low vital capacity, and location of the cavity contraindicate decostalization of the chest wall, the extrapleural space is developed and a paraffin pack inserted.

Oleothorax consists of the intrapleural injection of oil. This procedure finds its chief indications in cases of obliterative pleuritis and in tuberculous empyemas.

10 per cent of the patients admitted to sanatoria are in need of a thoracoplasty. It was their only hope of a cure prior to the introduction of the procedure, extrapleural pneumothorax. A large number still require a thoracoplasty, and this operation functions by decreasing the size and restricting motion of the operated hemithorax. It offers these utterly hopeless cases from an 80 to 90 per cent chance of closing their cavities with a resulting negative sputum. Thoracoplasty patients in general have a more permanent cure than other collapse procedures. It is an operation of some magnitude, but with the evolution of an improved technique, selective operative procedures, and a better understanding of the indications, thoracoplasty will always remain one of the best methods of collapse therapy. See Figures 1-A-B.

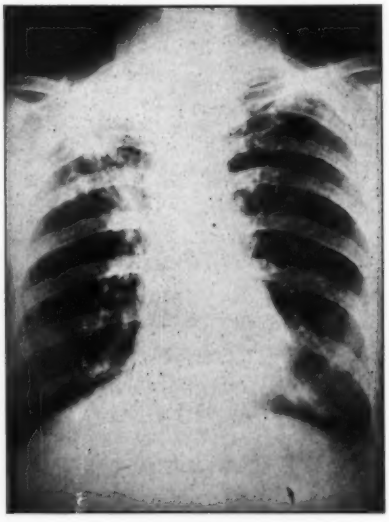


Figure 1-A

White female, aged 55 years. Known case of pulmonary tuberculosis for 13 years. Bed rest in Sanatorium for 6 years. Pneumothorax on right failed. Temporary phrenic right did not result in any improvement. Vital capacity 71 per cent. Sputum volume 68 gms. per day and highly positive.

Surgery is being successfully applied to an ever-widening variety of bilateral as well as unilateral cases of pulmonary tuberculosis. This has been accomplished by the introduction of new operations, refinement of the old opera-

Figure 1-B

2 months after the last stage of a 2 stage (6 ribs) posterio-lateral extrapleural thoracoplasty (rt.) Note the selective collapse of the diseased apex sparing the healthy lower lobe. Vital capacity is the same as before operation. Sputum is free of tubercle bacilli for the first time in 13 years.

tions, a better understanding of the indications and contraindications for various procedures, and by experience the limitations and capacities of these operations are more clearly defined.

EMPYEMA

That there is an empyema problem is apparent from the high mortality that follows the late diagnosis and treatment of acute empyema, and from the organic degenerations, protracted disabilities and deformities that occur in neglected cases of chronic empyema. World War experiences and the teaching of Graham did much to place the treatment of empyema upon a sound physiological and scientific basis. Little can be done to prevent the occurrence of an acute empyema; however, improper drainage, by far the most frequent cause of an acute empyema becoming chronic, is preventable. Improper drainage is chiefly responsible for persistence of pyogenic infection in the walls of the empyema cavity and for the production of excessive scar tissue on the pulmonary pleura that binds down the lung, preventing it from expanding to meet the thoracic wall and from obliterating the empyema cavity. Improper drainage may indicate: too early open drainage, too late a drainage, or a drainage of too short a duration; too narrow a tube or none, too short a tube, or too long a tube; not dependent drainage; no provisions for antiseptic irrigations; and undrained pockets. Other causes of an acute empyema becoming chronic are persisting infection in the walls of the empyema cavity which may be pyogenic, tuberculous, or actinomycotic; (2) excessive scar in lung or on the visceral pleura preventing pulmonary expansion; (3) bronchopleural fistula; (4) communication with neighboring structures such as osteomyelitis of a rib, perinephritic abscess, or neoplasms of the lung and mediastinum; and (5) a foreign body in the emypema cavity.

The management of a chronic empyema is at times a formidable procedure, but the gratifying results of modern surgical treatment are striking. An extrapleural thoracoplasty may suffice in closing the cavity; however, a combination of this type of thoracoplasty plus a Schede' thoracoplasty frequently supplemented by a muscleplasty are called upon to close these massive chronic empyema cavities.

BRONCHIECTASIS

In the past decade great strides have been made in the management of this chronic suppurative disease of the bronchi and lungs which manifests itself either as a saccular type or as a cylindrical type of bronchiectasis. This disease is a result of infection in the bronchial wall, and in childhood it frequently is a sequela of pneumonia, measles, whooping cough, influenza, scarlet fever, and foreign bodies in the air passages. In the adult, pneumonia, influenza, and lung abscess are the most common causes of bronchiectasis. There appears to be a definite relationship between chronic sinusitis and bronchiectasis.

Symptomatically the disease manifests itself by a chronic productive cough, loss of weight, secondary anemia, and a foul sputum. The patient will frequently give a history of recurrent attacks of pneumonitis, hemoptysis, and an illness which dates the onset of the disease. Untreated, a high percentage of these cases will eventually die either of pneumonia, pulmonary hemorrhage, or of a brain abscess.

It is not uncommon to see an advanced case of bronchiectasis denying a history of the production of a foul sputum, but revealing a history of recurrent severe pulmonary hemorrhages. This type of case is classified as dry bronchiectasis.

The surgical treatment of bronchiectasis, either a one stage or two stage lobectomy, coupled with the recent advances in anesthesia and a better understanding of the physiology of the chest, is well established. In a series of 84 cases Churchhill of Boston has been able to report a mortality rate of less than 3 per cent. Alexander of Michigan, Overholt of Boston, and many others report a mortality rate of less than 13 per cent. The mortality rate will parallel the severity of the disease in a given group of cases, and a higher mortality rate is expected in cases upon whom a bilateral lobectomy is performed. It is gratifying to know that a majority of these cases, even with latent disease, tolerate an operation of this magnitude surprisingly well. See Figures 2-A. B. C. D.

Figure 2-A

White female, aged 23 years, admitted to Providence Hospital October 28, 1938 with severe saccular bronchiectasis of right lower lobe as shown by bronchogram (AP film). Daily sputum quantity 400 cc. Pneumonia on 5 occasions in past 3 years. Onset bronchiectasis age 9 years following measles.

The early cylindrical disease of the bronchi offers a problem, while saccular disease "dry or "wet," disease with recurrent attacks of pneumonitis or with hemorrhage, and disease

Figure 2-B

Lateral film of chest as illustrated in figure 7-A showing bronchiectasis limited to the right lower lobe. A bronchogram on the left side showed an absence of the disease.

Figure 2-C

Specimen (Rt. lower lobe). Arrows point to large bronchiectatic cavities. The entire lobe is studded with cavities such as can be seen in periphery of the lobe.

Figure 2-D

Appearance of patient on the eighteenth postoperative day. She is now at home, free of cough and sputum, and a residual broncho-cutaneous fistula is about closed.

with continued purulent sputum, the treatment is definitely surgical. Instillation of iodized oil in early cases offers symptomatic relief by clearing up the infection, but if repeated attacks of infection occur with purulent sputum lobectomy at this stage of the disease is a far less serious procedure than in the case illustrated. Bronchoscopic and postural drainage have their indications, and they are accepted as of most importance in the preparation of the patient for a lobectomy and for a pneumonectomy, if the extent of the disease indicates the latter.

LUNG ABSCESS

In spite of an improved technique in the surgical management and conservative or medical management of lung abscesses the mortality rate from this disease remains high. In a series of cases reported by Rives and Romano[2], the known mortality rate was 42 per cent. Allen and Blackman's[3] collected statistics show a mortality of 34.3 per cent in 2,114 cases. This report comprises cases from the best medical centers and the actual situation is probably worse than these figures indicate.

Operations on the respiratory tract lead all other types of operations in the percentages of complications by a lung abscess. Pneumonia and influenza are causative diseases. Foreign bodies, tumors, traumatic injuries, and septicaemias are frequently exciting causes.

The management of a lung abscess is at times difficult. It cannot be denied that a fair percentage of these cases get well, if left alone. A fair percentage will require meticulous medical attention, blood transfusions, supportive treatment, and postural drainage to aid them in a recovery. On the other hand surgery is urgently required in some of these cases for a recovery. If the lung is extensively involved, the mortality will be high regardless of your selected therapy.

The primary causes of death in order of importance are; spreading pneumonitis, empyema, brain abscess, and anemia. Transfusions will correct the anemia. Early surgical drainage of peripheral lung abscesses, operative drainage in two stages, omitting the unjustifiable use of pneumothorax in lung abscess, avoidance of prolonged conservative treatment when the patient is obviously at a standstill or growing worse, and complete abandoment of needling the chest are some factors of importance in avoiding an empyema. Brain abscess may be avoided by opening the lung abscess with the actual cautery, operating with the patient in the Trendelenburg position, and by avoidance of unnecessary probing with a needle at the time of operation. The all important cause of death, spreading pneumonitis, can be prevented to a degree by supportive treatment coupled with the judicious use of bronchial and external surgical drainage. Bronchoscopy has a place in the treatment of lung abscess, but in an acute lung abscess this procedure is contraindicated unless a foreign body is present. When the temperature subsides and the acute process stabilizes, bronchoscopy is indicated and it is indicated in the chronic lung abscesses. Postural drainage deserves mention. It is useless to tip a patient over the edge of the bed in an attempt to drain an abscess cavity in the upper lobe or in the superior portion of the lower lobe. If an abscess cavity is full and through postural drainage severe paroxysms of cough are initi-

ated, you are courting the fatal complication, a spreading pneumonitis. In elderly and debilitated individuals who are managing to raise their sputum satisfactorily it is not uncommon to see postural drainage recommended with a fatal spreading pneumonitis resulting. Postural drainage has a place, but localize the cavity and individualize the case for best results. Surgical drainage of deep seated cavities, surgical drainage of early acute lung abscesses, and prolonged conservative treatment when progressive improvement is not shown are other factors contributing to a spreading pneumonitis. Occasionally, it is necessary to drain a lung abscess in the acute stage. Arsenicals, and Guiacol are popular with a few clinicians, and they perhaps should be given a wider trial.

CANCER OF THE LUNG

It is now generally accepted that the increase in the incidence of cancer of the lung is not apparent but real. At the Cleveland City Hospital in the eleven year period from 1927 to 1937, inclusive, there were 100 cases in which autopsy was performed, which constituted 1.3 per cent of 7,685 consecutive cases studied post mortem and 9.4 per cent of 1,064 cases of malignant tumor studied post mortem[4]. In other words, one patient out of every ten with a malignancy has a cancer of the lung. This incidence alone signifies that cancer of the lung should be constantly considered in our problems of diagnosis.

In the past, most of the signs and symptoms of cancer of the lung in reality have been due to carcinoma of the structures involved by regional and remote extensions of the growth from the site of its primary origin. Cancer of the lung may be silent, and the first warning of its presence may be a primary brain tumor which later proves to be a metastatic lesion from cancer of the lung. On other occasions, the presence of a serosanguinous pleural effusion, a Horner's syndrome, recurrent laryngeal nerve paralysis, or evidence of superior vena cava obstruction, may be the first sign of a bronchogenic carcinoma. The manifestation of such regional and remote involvment in itself means that such a patient has advanced beyond the hope of a cure. The text book picture of cancer of the lung: cough, pain in the chest, hemoptysis, and loss of weight, frequently is present, but again most of these patients are beyond the scope of surgery. Any patient over 40 years of age with a lung abscess must be carefully investigated with reference to a malignancy of the lung. In a series of 100 cases of cancer of the lung reported by Koletsky[4], 30 per cent had associated a lung abscess. In a series of 76 cases of lung abscess operated upon by Tudor Edwards, 10 per cent proved to arise from cancer of the lung. If cancer of the lung is to be diagnosed early, it first must be kept in mind. It is often impossible to make a clinical diagnosis early, but such symptoms as a chronic cough, hemoptysis, presence of a lung abscess, the development of asthma in a patient over 40 years of age who has not had such previous symptoms, shortness of breath, and unexplained loss of weight should arouse our suspicion as to the presence of cancer of the lung. The presence of blood in the sputum was once pulmonary tuberculosis until proven otherwise, but now the burden of proof lies on the man who makes such a statement. Blood spitting is frequently a manifestation of a lung tumor. If you are suspicious of a cancer of the lung, a bronchoscopic examination will establish a diagnosis in 75 per cent of the cases. A routine X-ray examination of the chest will offer a clue. It may be necessary to do a diagnostic pneumothorax, but it will be possible in the majority of cases to establish a diagnosis. Recently Barrett[5], published Dudgeon's results on the examination of the sputum for tumor cells. In 43 cases diagnosed as malignancy of the lung fragments of new growth were found in the sputum of all these cases. In 19 cases suspected of having malignancy where no fragments of new growth were found in the sputum all proved ultimately not to have malignancy. This method of approach offers great promise.

The successful surgical treatment of cancer of the lung by lobectomy and pneumonectomy does not differ from the treatment of cancer elsewhere in the body. The absence of one lung is not incompatible with a vigorous and active life. The remaining lung undergoes hypertrophy and the cardio-respiratory balance

is soon restored to its preoperative state. A one stage operation removing the entire lung and mediastinal glands after the method of Rienhoff[6], is the most popular technique of today in the good risk patient. A two stage procedure in which the pulmonary artery is ligated during the first stage with removal of the lung at the second stage is practiced in the poor risk patients. X-ray therapy has not proven effective in the management of cancer of the lung, and there is no authentic case on record to my knowledge where a cure has resulted. If a lung abscess develops secondary to a bronchogenic cancer and if surgically drainage of the abscess is established, X-ray therapy is certainly a worth while palliative procedure.

HYPERTENSION

In the past few years the current medical literature has been filled with clinical and experimental reports on the subject of hypertension. Most of these reports deal with operations upon the sympathetic nervous system which results in alleviating a persistent elevation of blood pressure. A startling multiplicity of theories as to the cause and nature of hypertension are discussed and for a review of this subject I would refer you to John Martin's article, "The Surgical Treatment of Hypertension."[7] Craig[8], of the Mayo Clinic reported a series of 158 cases with benefit in 70 per cent of the patients, clinically. His contraindications for operation were as follows: an age of more than 50 years, congestive heart failure, angina pectoris, marked renal insufficiency, and advanced arteriosclerosis. Peet[9], was the first man in America to do a bilateral intrathoracic sympathectomy for hypertension and up to the present time his series totals more than 400 cases. Some of his patients are showing a persistence of clinical cure or great amelioration of symptoms for as long as 5 years. In 1935, Peet [10], reported a series of 100 cases with the following results: 4 per cent operative mortality; 7 per cent showed no improvement; 16 per cent showed slight improvement, characterized by a slight fall in blood pressure with relief of symptoms; 33 per cent marked improvement with a marked fall in blood pressure and relief of symptoms; and 15 per cent were classified as tentatively cured. This gives worth while improvement to 77 per cent of his patients, and Craig's results are in keeping with Peet's series.

It is gratifying to know that we can offer these patients relief by sympathectomy in a worth while per cent of them.

MEDIASTINAL TUMORS

The mediastinum has long been looked upon as an inaccessible cavity and difficult to approach in that the posterior portion is situated deeply between the pleural cavities and inclosed within a strong bony cage. These difficulties have been surmounted and there is little hesitancy in removing a tumor or cyst from any location in the mediastinum.

These tumors behave as new growths in any part of the body. If the tumor is benign, the growth is slow, usually symmetrical, well demarcated on the X-ray film, and the first symptoms are usually those resulting from compression. If the tumor is malignant, the growth is rapid, infiltrative, may or may not be well demarcated on the X-ray film, and it may manifest itself either by compression symptoms or by involvment of the contiguous structures. A pain in the chest which is persistent, localized, and well defined bears investigation clinically, supplemented by an X-ray film of the chest. Mediastinal tumors are notorious for the paucity of physical findings in the chest examination.

Tumors of the mediastinum are as a rule not difficult to diagnose, if the location of the tumor is identified and kept in mind. Solid tumors are usually present in the posterior mediastinum, and they arise in the majority of incidences from some nerve structure. We may have a simple neuroma, ganglioneuroma, see Figures 3-A. B. C. D. E., perineural fibroblastomas, sympatheticoblastoma, neuro-fibromatosis of the mediastinum, or any type of tumor that arises from the sympathetic or peripheral nervous system in any other location. Tumors arising from the sympathetic chain lie close in the costo-vertebral gutter. The solid tumors or cysts arising in the anterior mediastinum and especially when they are located above the hilus of the lung belong to the general class of tumors teratomas or der-

Figure 3-A

White female aged 10, consulted Dr. W. A. Boyd, because of a scoliosis of one year in duration, and intermittent sharp pain in right chest for 3 months. The scoliosis, and tumor mass capping the dome of the right thoracic cavity is clearcut.

Figure 3-B

Lateral film of chest as illustrated in figure 3-A. Note the extent of the tumor and its posterior location. This location aided in a correct preoperative diagnosis of a mediastinal ganglioneuroma.

moids. A large group of tumors of the mediastinum are placed under a general classification of lymphoblastomas. The tumors frequently grow rapidly, lie in the posterior mediastinum close to the midline where the mediastinal lymph nodes are present, are frequently multiple, and respond like magic to radiation only temporarily.

It is impossible to discuss the surgical ap-

Figure 3-C

P A film of chest 6 weeks after removal of the tumor. There is evidence of regeneration of the partially resected 2nd and 3rd ribs posterior. The scoliosis has shown improvement.

Figure 3-D

Appearance of the patient on the 17th postoperative day, 4 days after discharge from the hospital. The approach to the tumor was made through a parascapular incision which is illustrated above.

Figure 3-E
(P-A)

Appearance of the tumor after radical excision. The three ramifications on the right extended into the neck between the roots of the brachial plexus thus explaining the pain in the right shoulder and chest. Microscopic examination revealed a fibroganglioneuroma, a benign mediastinal tumor.

proach to these tumors. After the tumor has been localized, it is best to surgically extirpate it through an approach which disturbs the continuity of the thoracic cage the least. Each case will offer an individual problem. If the tumor is definitely infiltrative and definitely hopeless, an attempt at surgical excision is not indicated, but decompression by dividing the sternum for relief of pressure symptoms may be indicated. If the tumor is confused with a lymphoblastoma, diagnostic radiation therapy may be tried.

If the tumor, either benign or malignant, offers any chance of radical excision, an attempt should be made to surgically remove it. See Figures 3-A. B. C. D. E. The cases with a benign tumor will be cured and a worthwhile per cent of those with a malignant lesion will be cured. Excluding lymphoblastomas, X-ray therapy does not offer the remaining malignant tumors of the mediastinum any benefit.

The scope of my subject is too broad for a single article, and I am obliged to omit the ingenious procedures used for the removal of foreign bodies from the bronchi, lungs, and esophagus, and, regretfully, I must also omit reference to the repair of diaphragmatic hernia, pulmonary neurectomy for asthama, surgery of the heart and great vessels, anastomosis of the pectoral muscle to the heart muscle in coronary ischemia, repair of diverticuli of the esophagus, and even some valuable collapse procedures in the management of tuberculosis.

BIBLIOGRAPHY

1. Leslie, G. L. and Anderson, R. S.—Intensive Collapse Therapy in Pulmonary Tuberculosis. A study of the Extent and Results of such a Program in a Group of 1,124 Patients. Am. J. Med. Science, 193:149, 1937.

2. Rives, J. D., Major, R. C., Romano, S. A: Lung Abscess. Annals Surg., 107:753, 1938.

3. Allan, Clyde I., and Blackman, James F. Treatment of Lung Abscess. J. of Thor. Surg. Vol. 6, No. 2, page 156, Dec., 1936.

4. Koletsky, Simon—Primary Carcinoma of the Lung—Archives of Internal Medicine, Vol. 62, PP 636:651, Oct. 1938.

5. Barrett, N. R.—Examination of the Sputum for Malignant Cells and Particles of New Growth. J. Thor. Surg., Vol. 8, No. 2, Dec., 1938.

6. Rienhoff, William F.—Carcinoma of Lung. Surgery, Vol. 1, No. 1, Page 125, Jan., 1937.

7. Martin, John—The Surgical Treatment of Hypertension—Collective Review. International Abstract of Surg. Vol. 67, 419:434, Nov., 1938.

8. Craig, W. McK.,—Essential Hypertension. The Selection of Cases and Results Obtained by Subdiaphragmatic Extensive Sympathectomy. Surgery, Vol. 4, Page 502:509, Oct., 1938.

9. Peet, Max Minor—Personal Communication.

10. Peet, Max Minor—The Surgical Treatment of Hypertension—Proceedings of the California Academy of Medicine, 1935-1936.

Report of the Committee* on Maternal Welfare

By Dr. Robert E. Seibels, Chairman Committee on Maternal Welfare, S. C. Medical Asso., Columbia, S. C.

Upon tabulation of the results of the survey of the maternal deaths for the year ending June 30, 1938, it becomes apparent that no useful purpose would be served in publishing these tables as there was no appreciable difference between these and those published in the last report. We have decided, therefore, to omit these tables for this year and let the report for the next fiscal year analyze the five year study which will have been completed with the accumulation of the data from the survey for 1939.

MATERIAL

It is noted that the rate for the year is 7.2 per 1000 live births reported. This is probably accounted for by the reporting of a larger number of live births for 1938 than in the previous year; but is a significant reduction when compared with the rate of 9 per 1000 for 1935, and is even more significant when we note that this represents a drop from the total of 384 deaths in 1935 to 305 in 1938.

The method previously used for gathering the medical and social backgrounds of the deaths has been continued. A copy of each puerperal death certificate has been attached to a questionnaire and sent to the county in which the patient died for investigation under the supervision of the county health officer. There is an invariable delay of five to six months between the death of the patient and the beginning of this investigation occasioned by the system of having several registrars in each county who file their reports with the Bureau, where they are sorted, classified, and then referred to our Committee.

COMMENTS

Birth Certificates—The accepted method of figuring maternal mortality is on the basis of the number of maternal deaths per 1000 live births. Sources of error in computing the rate are—first, the accuracy with which the deaths are classified as puerperal, and second, the percentage of live births reported. We believe that the assignment of deaths to the puerperal classification is very accurate as the Bureau of Vital Statistics has been most cooperative with the Committee in asking permission of the physician to change to "non-puerperal" those deaths which investigation has proven to have been erroneously so designated. The factor of the number of live births reported is evidently inaccurate. The Committee has no way to determine the number of live births except by comparison: we find that only 70% of live births are reported from cases terminating fatally. If this may be taken as a fair index of the accuracy of birth registration we may assume that there should be a 30% increase in our total live births which would make our rate approximately 6 per 1000—much more nearly in line with the rate for adjoining states and the national rate.

City and County Mortality Rates — The figuring of Mortality rates for the small sections may be misleading. Each death is charged to the county where the patient died. In several counties with active hospital services patients are brought in from surrounding counties which have no hospitals. This results in a high rate of admission of desperately ill patients some of whom have been IN EXTREMIS and should not have been moved. Certain other areas with hospitals do not draw patients from adjacent territory, with the result that their rate is a more accurate index of both their prenatal supervision and of medical care. In one county, whose hospital is the center for

---

*The Committee consists of Dr .Herbert Blake, Anderson; Dr. P. J. Boatwright, Orangeburg; Dr. R. B. Bultman, Sumter; Dr. J. Decherd Guess, Greenville; Dr. James McLeod, Florence; Dr. Lester A. Wilson, Charleston and Dr. Robert E. Seibels, Columbia.

Read before the House of Delegates, South Carolina Medical Association, Spartanburg, S. C., April 11, 1939.

three adjoining counties, prenatal care and good medical service have produced an extremely low rate among the residents of that county. However, the importation of moribund cases from adjoining counties has resulted in giving this county an apparently discreditable rate. This may be contrasted with a county in another section of the state which imports very few cases; but whose hospital practice is radical. The two areas have the same mortality rate but for entirely different reasons.

Activity of the Committee—The Committee gave long and serious thought to the problem of "hospital deaths." We estimated that obstetrical admissions to the hospitals are less than 10% "planned hospital deliveries," and the other 90% are admitted either because of the development of serious symptoms or because complications were anticipated. Therefore, it is quite unfair to compare mortality in the hospital with that in the home, because of the different type patient cared for in the former. The great majority of complicated cases are brought in because of eclampsia, hemorrhage, and prolonged labor; and many are potentially septic on admission. While this is true, it does not explain all the disasters of hospital obstetrics, as the study of the records continues to reveal a rather wide prevalence of radical operative deliveries among unsuitable cases. Operations are preformed in spite of strong contraindications; too frequently there is no record of complete history nor of physical examination nor of any laboratory work; consultations are rare even when specialists are available, and frequently operative deliveries are carried out by internes with no supervision.

Consultations in the hospitals are rarer than in the home in complicated cases, and in general it has been recorded that the general practitioner sought advice from his colleagues with much greater freedom and frequency than did the obstetrician or the general surgeon.

In order to focus the attention of the administrative heads of hospitals and their staffs on this problem, we submitted the following to each hospital reporting admission of obstetrical cases.

The Committee on Maternal Welfare of the South Carolina Medical Association recommends the adoption of the following rules by every hospital in South Carolina taking obstetrical cases and their careful checking by the proper authorities to see that they are rigidly enforced.

1. Sterile gloves must be worn for all examinations and deliveries; hands must be scrubbed according to the technique observed in the operating room before putting on gloves.

2. All patients should be shaved and prepared according to the technique adopted by the hospital before any examination is made. Rectal and vaginal examinations should be as few as possible; the time of the examination, the physician making it, and the condition found should be entered on the chart.

3. The obstetrician and the anesthetist and nurse must wear masks over noses and mouths during the preparation, examination and delivery of the patient.

4. All cases of infection should be transferred from the maternity department and isolation technique instituted.

5. Consultation with a competent consultant is required in all of the following cases:

(a) All prolonged labors (24 hours)

(b) Cases requiring Cesarean Section.

(c) Breech presentation, unless under 28 weeks.

(d) Difficult forcep cases except outlet forceps.

(e) Versions.

(f) Occiput posterior presentation requiring forceps or version.

(g) Eclampsia, placenta previa or other serious complications.

The consultation should be formal, that is, the attending physician should write on an appropriate sheet on the chart an outline of the case, his diagnosis, and his plan of procedure and request the opinion of the consultant. The consultant should record his observations, his agreement or disagreement with his colleague's conclusions and the reasons for his decision. The choice of a consultant should be governed by local conditions. *It is recommended that the attending physician be allowed to call the consultant of his choice.*

6. Provision for isolation of infected cases.

If a case is infected on admission or becomes infected, it should not be taken care of in an obstetrical department or by nurses on general obstetrical duty. It is recommended that isolation technique be instituted for both the mother and the baby.

7. All normal cases must be visited at least daily by the attending physician and he should be present in the room when any obstetric interference is carried out. Internes should not be permitted to perform forcep deliveries, versions, or breech extractions, except under direct supervision of the attending physician, who should be held responsible for the technique and judgment used in the treatment.

8. There should be a special isolation nursery

with cubicles for babies with sore eyes, syphilis, impetigo, or other infections. They should be attended by special nurses wearing a separate pair of gloves for each case and gowns as well as masks should be worn by all entering this nursery as in other nurseries.

9. Adequate records should be kept in order to study cases and tabulate results in the annual report. The record sheets should be concise but contain all the essential information. If these records are too complicated it will be difficult to get the courtesy staff to fill them out properly. If a physician is not willing to keep a reasonable record he should be denied hospital privileges. Records should not be filed away until completed. Every hospital should make out an annual obstetrical report so as properly to evaluate its results.

10. Obstetrical staff conferences should be held regularly and open to all physicians interested. Monthly conferences are most valuable as here details are discussed regarding causes of complications, how to prevent them, and how to treat them, as well as reasons for maternal deaths. Any physician may occasionally make an error in judgment or technique but if he attends such conferences he is less likely to do so.

Discussion

Rules requiring consultation in abnormal cases.

While occasionally it may be a nuisance to a competent obstetrician to have a consultation, it must be remembered that the majority of hospital deliveries are not under the care of specialists in obstetrics. If physicians are going to treat abnormal cases without advice or assistance the reduction of maternal mortality can not be accomplished; furthermore, under the protection of the hospital he may undertake procedures which he may be unable to carry out without disastrous results to the patient and constituting a reflection on the hospital.

The competent physician who has carefully examined his patient and recorded the indications for interference and has in mind the dangers of the procedures he proposes to carry out, has nothing to fear from consultation and from such a professional meeting, both he and the consultant will have an opportunity to learn. ***Consultation should be free unless the patient is well able to pay a moderate fee.***

For the sake of maternal welfare, petty jealousies must be put aside and a helping hand given to any physician dealing with abnormal cases.

"Obstetric surgery is in marked contrast to general surgery. In the latter, when operation is deemed necessary, the procedure is well defined; only occasionally has the surgeon any difficulty in deciding between alternative procedures. Technical skill is all important. In obstetric surgery, on the other hand, while technical skill is equally important, judgment in choice of procedure and in the time to interfere may make all the difference as regards success or failure. This can only be learned by long experience, accurate observation and consultation practice."

—*J. Monroe Kerr.*

A form for obstetrical reports was sent each hospital with the request that it be kept on an annual basis and that a copy be sent to the Committee and also made available to the staff.

We are pleased to report that these rules and regulations were adopted by the following hospitals; The Tri-County Hospital, Orangeburg; the Tuomey Hospital, Sumter; the Conway Hospital, Conway; the Providence Hospital, Columbia.

Apparently the greatest obstacle to the adoption of these rules and regulations has been a failure of the staff to appreciate the need for them coupled with the theory that their adoption would seriously handicap the proper activities of a physician. For example, the question was raised concerning the inclusion of breech deliveries as a major complication. It is true that a breech can be a very simple operation, but it may be one of the most complicated and difficult obstetrical procedures that a physician has to face. The number of maternal and fetal deaths in breech deliveries makes clear the reason for including these in the consultation requirements rather than to leave it to the prognostic ability of a physician to determine in advance those which may be difficult. The same reasoning is applicable to both forceps deliveries and to abdominal hysterotomys (Caesarean Sections).

This plan has been in operation long enough to demonstrate that it is practical and useful. A report from a hospital which adopted these rules states that no occasion has occurred when a patient suffered in any way by the delay incident to consultation; and further records two normal deliveries after consultation had convinced the attending physician that the planned Caesarean Section was unnecessary.

Recommendations

1. The Committee recommends the cooperative effort of all physicians to secure the adoption and effective use of the rules and regulations for the care of obstetrical patients.

2. That every effort be made to increase the registration of births.

THE JOURNAL
OF THE
South Carolina Medical Association

EDITOR-IN-CHIEF
Edgar A. Hines, M. D., F. A. C. P. ---------- Seneca, S. C.

ASSISTANT EDITOR
J. I. Waring, M. D. ---------- Charleston, S. C.

ASSOCIATE EDITORS

Internal Medicine
J. H. Cannon, M. D., F. A. C. P. ---------- Charleston, S. C.

Pediatrics
R. M. Pollitzer, M. D. ---------- Greenville, S. C.

Obstetrics and Gynecology
J. D. Guess, M. D. ---------- Greenville, S. C.

Urology
The S. C. Urological Society

Roentgenology
R. B. Taft, M. D. ---------- Charleston, S. C.

Pathology and Bacteriology
H. H. Plowden, M. D. ---------- Columbia, S. C.

Surgery
Wm. H. Prioleau, M. D., F. A. C. S. ---------- Charleston, S. C.

Eye, Ear, Nose and Throat
J. F. Townsend, M. D., F. A. C. S. ---------- Charleston, S. C.

Dermatology and Syphilology
J. Richard Allison, M. D. ---------- Columbia, S. C.

Gastro-Enterology and Proctology
W. T. Brockman, M. D. ---------- Greenville, S. C.

Nervous and Mental Diseases
E. L. Horger M. D. ---------- State Hospital, Columbia, S. C.

Public Health
B. F. Wyman, M. D. ---------- Columbia, S. C.

Orthopedic Surgery
Austin T. Moore, M. D. ---------- Columbia, S. C.

Please send in promptly notice of change of address, giving both old and new; always state whether the change is temporary or permanent.

OFFICE OF PUBLICATION

Medical Building ---------- Seneca, S. C.
Subscription Price ---------- $3.00 Per Year

AUGUST, 1939

SOUTHERN PEDIATRIC SEMINAR

On July 24 the nineteenth session of the refresher courses given at Saluda, N. C., opened with an unusually large student body numbering approximately one hundred coming from as far West as Kansas but South Carolina had the largest quota of any of the States. There was a considerable enlargement of the scope of the Seminar this year which in addition to a very interesting pediatric program included many obstetrical problems since the majority of these graduate students are general practitioners. Another innovation this year was the well baby clinics conducted by representatives of the Children's Bureau of the United States. This Seminar runs for two weeks every year and it is believed that it is one of the most popular refresher courses in pediatrics in this country. The following South Carolina doctors were registered:

Dr. Robt. P. Jeanes, Easley, S. C.
Dr. J. O. Ryan, Chesnee, S. C.
Dr. F. Brinkley, Ellenton, S. C.
Dr. D. S. Keisler, Leesville, S. C.
Dr. James Crosson, Leesville, S. C.
Dr. J. S. Palmer, Allendale, S. C.
Dr. Walter E. Whitley, Pinewood, S. C.
Dr. Isaac Hayne, Congaree, S. C.
Dr. Robt. Black, Bamberg, S. C.
Dr. J. H. Mills, Mayesville, S. C.
Dr. C. E. Gamble, Turbeville, S. C.
Dr. J. V. Tate, Calhoun Falls, S. C.
Dr. Martin M. Teague, Laurens, S .C.
Dr. John Wyman, Denmark, S. C.
Dr. B. R. Johnston, Estill, S. C.
Dr. M. G. Peeples, Scotia, S. C.
Dr. Walter R. Wiley, Chesterfield, S. C.
Dr. John K. Webb, Fountain Inn, S. C.
Dr. F. T. Simpson, Westminster, S. C.
Dr. A. T. Hutto, Pelion, S. C.
Dr. W. A. Black, Beaufort, S. C.
Dr. C. I. Goodwin, Holly Hill, S. C.
Dr. James A. Fort, North, S. C.
Dr. F. K. Shealy, Clinton, S. C.
Dr. H. B. Senn, Newberry, S. C.
Dr. W. M. Evans, Monck's Corner, S. C.
Dr. Cecil Rigby, Spartanburg, S. C.
Dr. W. H. Breeland, Allendale, S. C.
Dr. R. E. Mason, St. Stephen, S. C.
Dr. J. R. McCormack, Olar, S. C.
Dr. J. I .Greene, Elloree, S. C.
Dr. J. C. Hall, Gaffney, S. C.
Dr. A. R. Johnston, St. George, S. C.
Dr. T. M. Stuckey, Bamberg, S. C.
Dr. J. W. Kitchen, Liberty, S. C.
Dr. H. R. Perkins, Laurens, S. C.
Dr. A. Ritter, Ridgeland, S. C.
Dr. A. R. Nicholson, Edgefield, S. C.
Dr. E. H. Moore, Newberry, S. C.
Dr. C. S. McCants, Winnsboro, S. C.

MEMORIALS TO PHYSICIANS

The handsome granite monument erected to the memory of Dr. John Boyd McKeown of Great Falls, S. C., and unveiled July 30, em-

phasizes a gratifying tendency not only in South Carolina but in other parts of the United States to recognize the invaluable services rendered to humanity by the members of the medical profession. In this particular instance the tribute was paid to a general practitioner in appreciation of his services of more than thirty years in one community, by the citizens of the community in which he had rendered this service.

In this connection it would be of interest to know just how many memorials have been erected to physicians in South Carolina and by whom. The medical traveler in different sections of the State frequently runs across some form of tribute to a deceased physician. Often these memorials have been placed in the local hospital, some erected by the citizens, some by medical societies, some by boards of trustees of the institutions but all in loving remembrance of one who gave of himself for the benefit of the people in his respective community.

The Woman's Auxiliary to the South Carolina Medical Association has done a remarkable piece of work through its historical committee in preserving the records of the lives of many worthy physicians of South Carolina who have passed on. These records are now stored at the Headquarters office of the South Carolina Medical Association and available for any who are interested in them.

The recently organized historical commission of the South Carolina Medical Association is getting well under way accumulating other valuable records about the medical profession of this state with Headquarters at the Library of the Medical College of the State of South Carolina.

SOUTH CAROLINIANA

J. I. WARING, M.D., CHARLESTON, S. C.

CONSERVATIVE MANAGEMENT OF THE SINUSES, by J. W. JERVEY, Jr., GREENVILLE. SOUTH. M. J. 32:278, MARCH, 1939.

The author cautions the too ready use of surgery for infected sinus and urges that medical treatment be continued as long as possible.

A NEW INSTRUMENT FOR ASPIRATION BIOPSY; TECHNICAL PROCEDURE COMBINING PRINCIPLES OF TISSUE PUNCH AND AN IMPROVED ASPIRATION SYRINGE, by F. WRENN AND J. M. FEDER, ANDERSON. SOUTH. M. J. 32:320, MARCH, 1939.

GIANT FACETED CALCULUS OF THE APPENDIX, by G. H. BUNCH AND D. F. ADCOCK. ANN. SURG. 109:143-146, JANUARY, 1939.

A case report, with pictures.

ACUTE NICOTINE POISONING WITH FATAL OUTCOME IN A CHILD, by J. P. PRICE, FLORENCE. AM. J. DIS. OF CHILDREN, 57:102, JANUARY, 1939.

Fatal result seventy-two hours after administration of "black leaf 40." Spinal fluid changes were noted.

ADENOMAS OF THE COLON, by S. SAILER, CHARLESTON. SOUTHERN SURGEON. 8:86-88, FEBRUARY, 1939.

A review of the pathology of this condition.

PROBLEM OF ROENTGEN THERAPY, by H. RUDISILL, CHARLESTON. SOUTHERN SURGEON, 8:89-94, FEBRUARY, 1939.

Discussion of differences in technique, individuals, and results.

CANCER SURGERY, by F. E. KREDEL, CHARLESTON. SOUTHERN SURGEON, 8:83-86. FEBRUARY, 1939.

A review of the surgery of cancer for the last months of 1938.

REGIONAL VOLUMETRIC STUDY OF THE GRAY AND WHITE MATTER OF THE HUMAN PRENATAL SPINAL CORD, by A. M. LASSEK AND G. L. RASMUSSEN, CHARLESTON. J. COMPARATIVE NEUROLOGY 70: 137, FEB., 15, 1939.

An anatomical study.

DR. LEWIS MOTTET'S PROJECTED INSTITUTE OF PHARMACY (1769), by J. H. HOCH, CHARLESTON. J. AM. PHAR. ASSN. 27:1260-1261, DECEMBER, 1938.

An account of a unique proposal to the State of South Carolina by a talented physician who was possibly too advanced for his time.

INTERESTING CASE REPORTS FROM ROPER HOSPITAL

For some time a plan has been under way to present to the physicians of South Carolina case reports from the teaching hospital at the Medical College giving in detail the methods pursued in the wards there. It is hoped that this presentation may be of service to the busy doctor in his practice.—Editor.

MULTIPLE STAGE OPERATION FOR GASTRIC ULCER

By Frederick E. Kredel, M. D., Associate Professor of Surgery and John A. Boone, M. D., Instructor in Medicine, Medical College of the State of S. C., Charleston, S. C.

The following complicated case of gastric ulcer showed on several occasions the two common indications for emergency operation, perforation and obstruction. The critical condition of the patient at the first two stages required a minimal amount of surgery as a life-saving procedure. An adequate operation for cure was performed at a third sitting.

W. E. N., white male aged 54, admitted September 16, 1938, had had the classical symptoms of peptic ulcer for some seven years and was diagnosed as such by X-ray in 1931. There had been numerous severe exacerbations. A massive hemorrhage took place 4 years ago. He had not been completely free from pain for any period during the past 3 years and various diets had proved unavailing. Four days before admission an acute flare-up with severe pain and vomiting began. After 11 days of Sippy diet some improvement had occurred and a barium meal demonstrated an ulcer crater at the pylorus. Two days later, on the morning of the tornado, perforation occurred. Because of the confusion incident to the caring for some 300 injured tornado victims, surgical consultation was not obtained until 5 hours after perforation.

Operation revealed some 1500 cc. of milky stomach contents in the peritoneal cavity and a perforation 1/2 cm. in diameter 1 cm. proximal to the pylorus on the anterior wall. The opening was quickly sutured over with two mattress sutures of 0 chromic catgut and reinforced with omentum. There appeared to be some stenosis at the pylorus, but the patient's condition was too critical to warrant gastro-enterostomy. The blood pressure fell to 60 over 0 and the pulse rose to 140 when the abdomen had been opened; so the incision was closed as quickly as possible, while intravenous fluids were given. The postoperative course was satisfactory except for the important fact that little or no food could pass the pylorus. All attempts at feeding resulted in gastric distress only relieved by aspiration through the Levin tube. Fifteen days postoperatively, the abdomen was reopened and an anterior gastroenterostomy with enteroenterostomy was performed. Feedings were begun on the third day and within a few weeks the patient stated he was able to eat his first square meal in 3 years. A marked edema of both lower extremities gradually disappeared on resumption of feeding. This appeared to be a nutritional edema for the plasma proteins were lowered to 5.28 grams. A cardiac factor may have been contributory since some orthopnea was present and the electrocardiograph showed evidence of posterior coronary occlusion.

The patient soon returned to work and had no difficulty for 4 months. However he was readmitted on March 10, 1939 with intermittent pain to the left of the umbilicus, nausea, vomiting, and constipation of 2 weeks duration. X-ray showed dilated loops of small intestine. A small amount of barium by mouth remained in the small bowel after 6 hours. A stoma ulcer was not seen. After an alcohol test meal, the gastric acidity was found to be Free HCl 58 units, total 68 units. This is a high figure, especially in the presence of a functioning gastroenterostomy. A diagnosis was made of small bowel obstruction and probable stoma ulcer. After four days of pre-operative treatment, consisting chiefly of Wangensteen suction-drainage and parenteral fluids, the third laparotomy was done. The anastomosis was adherent to the anterior abdominal wall and involved in an inflammatory mass surrounded by omentum. Separation revealed a large penetrating jejunal ulcer on the distal loop of the anastomosis. As

this was freed an opening was torn in it. Numerous dense adhesions obstructing the small bowel and transverse colon were divided. The distal two-thirds of the stomach and 18 inches of jejunum down to the previous enteroenterostomy were resected en bloc. Continuity was reestablished by anterior Polya anastomosis with catgut. Examination of the specimen showed the jejunal ulcer to measure 5 cm. in diameter and to have penetrated through the serosa. There was gross evidence of a diffuse gastritis.

Convalescence was uneventful and the patient discharged on the 18th post-operative day in excellent condition. Now after four months he remains symptom-free on a relatively unrestricted diet. We have not succeeded in persuading him to discontinue his excessive use of the cigarette. We feel that smoking is contraindicated in cases of gastric and duodenal ulcer.

Several features of this case illustrate some principles of importance in the surgical treatment of peptic ulcer.

1. Acute perforation is best treated by simple suture performed as soon as possible. Cases upon whom operation is done within 6 hours rarely develop peritonitis.

2. When in severe cases, operation must be performed to relieve acute stenosis and further trouble in the form of a stoma ulcer may be anticipated, anterior gastroenterostomy can be more quickly done and will render more feasible gastric resection at a later date as compared to a posterior anastomosis.

3. Gastric resection has a definite place in the treatment of ulcer.

4. Patients with cardiac damage when well compensated and properly prepared will withstand major operative procedures in a satisfactory manner.

MINUTES

MINUTES OF THE HOUSE OF DELEGATES OF THE S. C. MEDICAL ASSOCIATION SPARTANBURG, S. C., APRIL 11, 1939

CONTINUED

Dr. J. McMahan Davis, Secretary of the Committee on the Medical College of the State of South Carolina reported as follows:

Report of Committee on Medical College of State of South Carolina

I wish to submit this report for Dr. L. M. Stokes, the Chairman. The committee deemed it to be to the interests of the medical college to give a dinner to the members of the legislature. A banquet financed by the alumni and the Executive Committee of the college was given on January 25, and was attended by approximately 350 people. The reaction among the legislators was extremely favorable.

The Ways and Means Committee granted a hearing, which was not tremendously successful, because the legislature is in a rather sad state. Unless it is able to get the money somewhere the medical college is going to suffer. We have assurance from some of the prominent members, however, that if possible the appropriation will be raised. We are very much afraid we shall not get over $150,000, although we are trying to have the appropriation raised to $165,000. If the plan proposed by Senator Sims is adopted and the six million dollars additional is raised, then we hope to get adequate appropriation.

President Des Portes urged that each member of the House of Delegates use his influence with the legislators from his county, in behalf of the medical college.

Dr. Kenneth M. Lynch, Chairman, reported for the Cancer Commission as follows:

Report of Cancer Commission

The Cancer Commission is really a virginal birth; it is an agency in the formation of which this Association has had no direct part. The need for it arose last fall, in the interim between meetings when it could not, of course, be put before the Association directly, coming about by reason of the fact that the Federal Government is undertaking to enter somewhat the field of cancer control. It became at least advisable for the State Board of Health to make provision for participation in whatever program might be developed, for the good of the people of this state. The State Board of Health, through Dr. Hayne, the Health Officer, asked the President of the Association to name an advisory body from the Association to deal with and advise the State Health Department in developing measures for such participation. The President appointed this commission as the result of that request, there being one member from each congres-

sional district. You will see the personnel in the program. The particular design in its origination was the fact that the Federal Government announced that it would have for loan through certain particular channels radium for use in the treatment of cancer. In order for anybody in this State to obtain such a loan it was necessary that the channels be set up through which it might be made. That was the primary motive for the formation of the commission. It is possible now, I believe, that those who apply through the State Board of Health may obtain a loan of radium for such use.

The Cancer Commission has had several meetings during the course of this year. In addition to this outline for the securing of whatever benefits may come from the Federal cancer-control program it has been our desire to have passed the so-called "Cancer Control Law," in line with other states, so that the State Health Department may cooperate with and take advantage of all such available aid as may come, particularly through Federal control measures. We have formulated a cancer-control law and submitted it through the State Health Department to which we are only an advisory body, to the legislative committee of the Association and to the Council, I believe. The Committee on Public Policy and Legislation and the Council approved this bill, which was then turned over to the Medical Affairs Committee of the House of Representatives, as it was our desire that such a bill have a more or less free course and not be controversial. It was our idea that, after approval by the agencies of this Association as to whether or not it is a proper bill, it should then be in the form of a medical-committee bill. We had a very sympathetic hearing before the Medical Affairs Committee, but that Committee questioned the possibility of the appropriation at this time of the $25,000 which is asked for in the bill. The legislative committee proposed to the Medical Affairs Committee that even without the appropriation the bill is worth while as an enabling act to establish through the Health Department channels to receive whatever benefits may be available. This bill is an authorizing bill. I presume the State Board of Health could enter this field without any enabling act, but the bill authorizes the Department to establish a bureau or division of cancer control. It authorizes the establishment of this Cancer Commission from the Association. The program proposed is that the Health Department, with the advice of the Cancer Commission, undertake with the cooperation of the profession in all the regions of the State to have set up certain diagnostic and treatment centers organized by the profession in certain strategic or logical cities in which indigent people with cancer may receive proper diagnostic and curative measures.

We all realize, of course, that this is entering upon a field which the Health Department heretofore has strictly and carefully avoided. It does bring the Health Department into participation in curative medicine, and that of course is objectionable to all of us. But, as in a great many things which are happening nowadays, conditions are arising and will continue to arise in which, if we do not take the leadership, the leadership will be taken from us and we shall be subject to things to which we do not care to submit. The cancer problem has become in the public mind tremendous. It so happens, as you all know, that there are a great many peop!e in South Carolina with cancer, as there are in other states, who are unable or have not the means to obtain such medical service as may be available to bring about in a great many cases relief of that state.

It is proposed that, strictly through the profession, people who can not now receive treatment may go to certain places where the facilities are such that everything may be done that can be done and there receive treatment at public expense, whereas now they would remain untreated because of lack of facilities or lack of means to utilize such facilities as exist. I may say that as long as I am a member of the State Board of Health and am your servant I will never participate in any movement to practice medicine on the part of that Board. It is, of course, necessary for us to organize to take care of the indigent. Certain localities are doing that and have done it all the while. Others are not. The cancer problem has grown so much in proportion, so much in volume, and so much in the public mind that it is going to be necessary to organize to take care of those who are unable to take care of themselves. It is going to have to be very carefully done, and it is necessary for us to organize to take the leadership in many such matters so that the leadership will not be taken away from us.

That is the status of the Cancer Commission. It exists as a creature of this Association, appointed by your President, to be an advisory body to the State Board of Health. Its activities up to this time have been making a way by which Federal aid can be obtained for South Carolina. Further than that its work will be to bring persons who may be prevented from having cancer under the proper agencies and is not the diagnosis and treatment of cancer.

The report of the Cancer Commission which was discussed by President-elect Dr. Douglas Jennings, by the President, by Dr. Lynch, and by the State Health Officer Dr. James A. Hayne, was accepted by the House of Delegates.

President Des Portes called for tthe report of the Committee on Necrology. Dr. W. C. Mays, the Chairman, was absent. While the members stood in respect to the memory of the deceased, Secretary Hines read the names of the South Carolina physicians who have died since the last meeting.

A recess was then taken, at one o'clock p. m., until two-thirty p. m.

Afternoon Session

The meeting was called to order at two-thirty by the President, who asked for the report of the Credentials Committee. The Chairman, Dr. MacDonald, stated that there are seventy members of the House who have qualified and are entitled to vote.

President Des Portes called for a report from the Delegates to the American Medical Association, and Dr. Hines gave it as follows:

Report of Delegates to American Medical Association

The report will be very brief because Dr. J. H. Cannon, who was to make it, has been kept at home by serious illness which developed in his family just a short time before he was to leave for this meeting and because we had agreed that a comprehensive report would be unnecessary on account of the wide publicity given to the doings of the American Medical Association at both the San Francisco and St. Louis meetings.

Your Secretary and Senior Delegate was honored by being appointed on two committees, one the Press Release Committee, with Dr. Fishbein.

We have been very glad indeed to have Dr. William Weston in the House as a representative of the powerful Pediatrics Section of the American Medical Association. That means that we have three South Carolinians in the House of Delegates, all thoroughly familiar with its organizations, its rules, and its procedure. We hope sometime, of course, to secure even greater honors from the national organization for our State.

The report of the State Board of Medical Examiners was read by Dr. A. Earle Boozer, its Secretary.

The delegates to other state societies were asked to report, but none were present.

New Business

Dr. James J. Ravenel, Delegate from the Medical Society of the State of South Carolina, Charleston, invited the Association to meet in that city next year. The Secretary then read a letter from Daniel Ravenel Co., in regard to a convention cruise. On motion of Dr. Weston the invitation to Charleston was accepted.

The following resolution was adopted.

"Whereas there has been introduced into the United States Senate a bill by Senator Wagner of New York, known as the National Health Bill, and

"Whereas there have been certain amendments offered, and

"Whereas these are instruments not conducive to the best practice of medicine, and

"Whereas the medical care of the population would be established at a lower level if they should be passed;

"Therefore be it resolved that the House of Delegates of the South Carolina Medical Association go on record as not favoring this legislation, and

"Be it further resolved that the Secretary be instructed to write Senators Byrnes and Smith and the South Carolina members of the House of Representatives to this effect."

Secretary Hines said that he had received a telegram from Dr. W. F. Reavis, of Waycross, Georgia, one of the fraternal delegates from that state, saying that he was unexpectedly detained and expressing his best wishes for the success of the meeting.

Dr. Hines then read a letter from Dr. W. Atmar Smith, of Charleston, in regard to the meeting of the Southern Tuberculosis Conference to be held there in October.

Dr. Jennings, the President Elect, announced the appointment of the following committee to take part in the celebration of the founding of the Medical Society of the State of South Carolina: Dr. William Weston, Sr., Columbia, Chairman; Dr. J. R. Des Portes, Fort Mill; Dr. J. B. Lattimer, Anderson; Dr. M. E. Hutchinson, Columbia; Dr. C. Williams Bailey, Spartanburg; and the President and Secretary of the State Medical Association ex officio.

Dr. Jennings then stated his idea of the function of the Association's Committee on Public Relations, saying that in his opinion the Committee should be authorized to inform the public through the press, by radio, and through a bulletin, if necessary, on the medical profession's attittude towards social medicine and the Government's program. He asked the approval of the House of Delegates to appoint an active committee on Public Relations, probably centered in Columbia to carry out such a program. On motion of Dr. Robert Wilson, Sr., seconded by Dr. William Weston, Sr., the suggestion of the President-Elect was indorsed by the House.

Election of Officers

The President asked the Committee on Credentials to act as tellers for the election.

Nominations to the office of president-elect were called for. Dr. Carl A. West, Camden, nominated Dr. J. Sumter Rhame, of Charleston, and Dr. D. L. Smith, of Spartanburg, nominated Dr. W. L. Pressly of Due West. The nominations of Dr. Rhame were seconded by Dr. MacDonald and Dr. Wilson, and that of Dr. Pressly by Dr. R. E. Abell, Chester and Dr. James R. Young, Anderson. Voting proceeded by ballot. The tellers reported the result as follows: Dr. Pressly, 42; Dr. Rhame 26. On motion of Dr. Wilson the election of Dr. Pressly was made unanimous.

At the request of President Des Portes the newly elected President-Elect was escorted to the platform by Dr. Young and Dr. MacDonald. Dr. Pressley then spoke as follows:

"I esteem it a great honor and privilege to have the opportunity of serving the South Carolina Medical Association. I do not know of any honor in the State that I would prize more highly than to be

elected to an office by the doctors of South Carolina. I love the doctors, and I love the practice of medicine. It has been my privilege during the last few years to be associated with many people in the teaching profession and also among the clergy, and I have made the assertion in the past and shall make it in the future that American doctors, and particularly the doctors of South Carolina represent in their lives the best cross-section of American manhood. I feel that I come from the ranks of what might be called the laborers in medicine. Looking out over this gathering I see the faces of many who are better qualified to serve this Association than I, but I pledge you my best efforts in its behalf. I realize that the next few years will present many problems to organized medicine and that it will take our best brains to formulate plans. I shall do my best to aid Dr. Jennings during the coming year, and I thank you heartily for the honor you have accorded me."

Other officers were elected as follows:

Vice-President—Dr. C. H. Blake, Greenwood.

Secretary-Treasurer—Dr. E. A. Hines, Seneca (re-elected).

Councilors:

First District—Dr. F. G. Cain, Charleston (re-elected).

Third District—Dr. J. D. Harrison, Greenwood (re-elected).

Fifth District—Dr. Roderick MacDonald, Rock Hill (re-elected).

Seventh District—Dr. E. T. Kelley, Kingstree (re-elected).

Members of Board of Medical Examiners:

Dr. Carl A. West, Camden, for fifth Congressional District, and Dr. N. B. Heyward, Columbia, for Seventh Congressional District, elected to succeed themselves.

Dr. Weston moved that the thanks of the Association be extended to Dr. Des Portes for his unusually efficient administration of its affairs. When this motion was put to vote by the Secretary it was carried with applause. Dr. Des Portes expressed his thanks for this action and also for the cooperation and the hospitality that have been given him during his term of office by the doctors in all parts of the State.

The program having been completed, and no other business appearing, the House of Delegates adjourned *sine die*.

Pathological Conference, Medical College of the State of South Carolina

KENNETH M. LYNCH, M. D., PROFESSOR OF PATHOLOGY

Case of Dr. T. H. Martin

January 27, 1939

ABSTRACT NO. 383 (42281).

Student Charles Presenting.

Admitted Aug. 30, 1937; died Sept. 2, 1937.

History: The patient was a negro woman, 50 years of age, admitted with the complaint of "pain in stomach." The present illness was of two years duration. At the time of onset, the pain was intermittent and griping in character and was not associated with nausea or vomiting. During the year prior to admission, the pain became more constant, of a dull gnawing character and was associated with vomiting; some gross blood was noted on one occasion. She had been unable to retain anything taken by mouth for several days previous to admission. There had been considerable weight loss during the last year of her illness. The past history furnished no information relevant to the present illness.

Physical: T. 100°. P. 92. R. 24.

The patient was a markedly emaciated negro woman of apparent stated age, critically ill. The skin was dry and inelastic. The pupils reacted to L and A. The head and neck were essentially negative. There was bulging of the lower costal cage on the left. Breath sounds were suppressed and a few fine rales heard over the left lung base posteriorly. The heart was not enlarged to percussion but the apex impulse was displaced to the left. Rate 92, rhythm regular and no murmurs were heard. B.P. 130/100. Examination of the abdomen revealed a large firm mass in the epigastrium most prominent toward the left hypochondriac region. The mass was dull to percussion and tender on palpation. The musculature, in general, was atrophic. The extremities were, otherwise, not remarkable. The reflexes were physiological.

Laboratory:

Urinalysis (8-31-37) Voided specimen was of a yellow color, cloudy in appearance and showed albumin plus with an occasional pus and red blood cell.

Blood	8-31-37
Hb	53%
RBC	3,210,000
WBC	10,900
Polys	76%
Lymphs	24%

Serology

Kolmer—4 plus

Kline—4 plus

Gastric Analysis

No free HCl

Greyish-green in color.

Foul odor.
No gross blood.
Few rbc on microscopic.

Course: The patient was unable to retain any nourishment given by mouth and complained of abdominal pain. The stools were observed to be watery in character, of a dark reddish-brown color and malodorous. On 9-2-37, the patient vomited a large amount of bright red blood, went into shock and expired soon afterward.

Dr. Kredel: (presiding) Mr. Williams will you open the discussion?

Student Williams: With a history of intermittent abdominal pain gradually becoming more constant and associated with vomiting and hematemesis on one occasion, it seems likely that the patient's symptoms were directly referable to some lesion in the upper gastro-intestinal tract. The weight loss also occurs frequently with an intestinal disturbance which interferes with nutrition. A large mass was also palpated in the left hypochondriac region and was apparently flat to percussion. I would think first of a tumor mass occurring within the wall of the stomach. Gastric analysis showed no free hydrochloric acid which is commonly noted in carcinoma of the stomach. No mention is made as to whether this was confirmed on subsequent examination. The patient's secondary anemia could also be explained by bleeding or ulceration of gastric carcinoma. It is also possible with the positive serology as this patient had, that she had a syphilitic lesion in the stomach wall. It would seem unusual, however, that a gumma of the stomach wall would reach such proportions as to form a large mass without having other evidence of the disease elsewhere in the body. In my opinion this is most likely a carcinoma of the stomach.

Dr. Kredel: Mr. Agnew, do you agree with what has been said?

Student Agnew: In view of the physical findings and laboratory examinations my first diagnosis would be a neoplasm of the stomach. However, an ulcer might give almost the same symptoms although the pain is usually more periodic and associated with meals and with hypersecretion of hydrochloric acid. It was not definitely determined that the mass palpated was in the stomach wall. Similar symptoms could be produced by something invading the stomach from without. There were occasional pus and red blood cells in the urine and a one plus albumin. A large kidney tumor would account for the mass and the urinary findings. A tumor of the pancreas will also cause obstructive symptoms and vomiting by direct compression of the duodenal wall. It it hardly likely though that a tumor of this organ would grow to such a large size. In addition these tumors almost always occur in the head and in this case there was no jaundice. Essentially I agree with what Mr. Williams has said.

Dr. Kredel: Miss McSwain, do you think this patient may have had Banti's disease?

Student McSwain: A large spleen of Banti's disease would account for a mass in the upper quadrant. The blood picture is not consistent with that of Banti's disease. These patients usually have a leucopenia and a marked secondary anemia, which is probably secondary to ruptured esophageal varices caused by the associated liver cirrhosis.

Dr. Kredel: Mr. B. S. Smith, what do you think are the possibilities of Banti's disease?

Student Smith: Banti's disease is not likely to give rise to its initial symptoms in a patient 50 years of age, but is most often found in young adults. The blood picture, as Miss McSwain mentioned, does not fit in with that usually noticed in this disease.

Dr. Kredel: Mr. Lipman, can you add anything to the discussion?

Student Lipman: I think the absence of free hydrochloric acid is an important finding in the diagnosis of gastric carcinoma, particularly when associated with a large abdominal mass and loss of weight.

Dr. Kredel: Is it usual for a patient to have a large gastric hemorrhage from a carcinoma?

Student Lipman: As far as I know gastric hemorrhage is a common finding in carcinoma of the stomach.

Dr. Kredel: No. While hemorrhages do occur in gastric carcinoma it is more common to have a massive hemorrhage from esophageal varix. Such a condition commonly occurs with advanced liver cirrhosis when there is compensatory hypertrophy of the veins about the cardia of the esophagus. The physical examination does not throw much light on the nature of this abdominal mass. It states that the mass is dull to percussion, which merely signifies that it is not caused by a hollow viscus. Until we know more about the characteristics of this tumor it will be difficult to say whether it was produced by something within the stomach wall or in an adjacent structure encroaching upon the stomach. Apparently no X-ray examination was made. Neither can I explain a connection between gastric carcinoma and the presence of watery stools unless there is an associated lesion elsewhere in the tract. The fact that the patient had complained of gastric symptoms over a period of two years would not speak against the diagnosis of a malignant neoplasm. It is frequently noted that these tumors may occupy a silent area of the stomach for six months or more without causing appreciable symptoms. Obviously a tumor encroaching upon the lower end of the esophagus or at the pylorus would be noted earlier because of obstruction.

Dr. Prioleau: I have not arrived at a definite diagnosis yet because all the symptoms are not explained by the presence of a single lesion. However, I did think of a carcinoma or tumor mass of the transverse colon which may give rise to gastric symptoms by pressure or infiltration of the stomach wall and at the same time cause the diarrhea. I

would not place too much stress on the finding of an occasional red blood cell in the urine because this was apparently not a catheterized specimen.

Dr. Lynch: If all aneurysms pulsated the diagnosis of this case would have been easier. This mass was caused by a large aneurysm, which had eroded the bodies of dorsal vertebrae, in the region of the stomach and eventually penetrated through the gastric wall giving rise to a fatal hemorrhage. I believe the erosion of the bone might well explain the intermittent pains and gnawing sensations that the patient complained of. Too much emphasis has been placed upon the finding of no free hyprochloric acid in a gastric analysis. Only one analysis was made and this was done with alcohol and not with histamin. I think the significance would only be important in corroboration of other important localizing signs of intra-gastric disease. Absent free hydrochloric acid has been noted in the older age groups. Also it has been noted when no lesions other than chronic gastritis were present. The presence of a positive Wassermann is so common in Negro patients that it is not necessarily presumptive of aneurysmal changes of the aorta but it should put one on guard. A good number of saccular aneurysms also show organization of large clots in their wall and therefore not necessarily give rise to appreciable expansible pulsations.

Dr. Lynch then demonstrated the origin of the aneurysm just above the diaphragm and pointed out how it had progressed downward through the diaphragm and eroded through the stomach wall. The ascending limb and arch of the aorta were not involved in the aneurysmal process. No lesion was demonstrable explaining the presence of the diarrhea.

A CONVENIENT OFFICE TREATMENT FOR TRICHOMONAS VAGINITIS

SILVER PICRATE
Wyeth

THIS simple treatment requires but two office visits, a week apart, for insufflations and the nightly insertion of a Silver Picrate suppository for twelve nights.

Complete remission of symptoms and removal of the trichomonad from the vaginal smear usually is effected following the Silver Picrate treatment for trichomonas vaginitis.

Complete information on request

JOHN WYETH & BROTHER, INCORPORATED, Philadelphia, Pa.

BOOK REVIEWS

PRACTICE OF ALLERGY: By Warren T. Vaughan, M. D., Richmond, Virginia. Three Hundred Thirty Eight Illustrations. Price $11.50. The C. V. Mosby Company, Saint Louis, 1939.

This is an exhaustive treatise on a subject of ever increasing interest and of protean manifestations. The author well says that the subject covers to a large extent the field of medicine. The volume opens with historical comments and portraits of the poineer investigators of allergic manifestations. It is noted that the term allergy was suggested by Pirquet in 1906. It is noted that John Bostock of Guys Hospital, London, first described asthma in 1819. The studies on anaphylaxis are worthy of careful consideration. The author discusses heredity and agrees that there is an hereditary factor in allergy. One of the important sections of the book is the chapter on Discussion with the Patient or the history of the illness. This chapter alone is perhaps worth the price of the book. Of course the entire subject of foods is an extensive presentation.

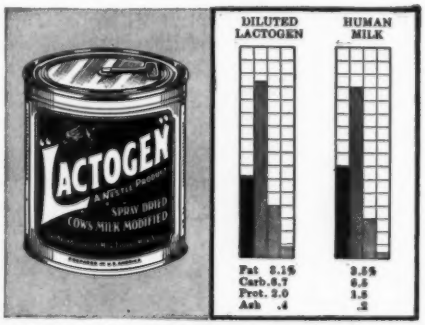
Many physicians find serum disease frequently puzzling. The author covers this subject in an admirable way. The chapter on Pharmacology of Allergy is illuminating and of great practical value. This chapter includes a section on Vitamin Information for Use in Diet Prescriptions. The book is a volume of one thousand and eighty two pages with an extraordinary number of illustrations. We commend the book not only to the general practitioner but to the specialist in many branches of medicine.

GONORRHEA IN THE MALE AND FEMALE: Third Edition. By P. S. Pelouze, M. S., Assistant Professor of Urology, University of Pennsylvania; Consulting Urologist to Delaware County Hospital; Special Consultant to United States Public Health Service. Thoroughly revised. 489 pages with 144 illustrations. Philadelphia and London, W. B. Saunders Company, 1939. Cloth. $6.00 net.

The campaign for the control of venereal diseases has stimulated renewed interest in this phase of the practice of medicine on the part of the medical profession. The recent publicity about sulfanilamide has also focussed, not only the attention of the doctor, but the public on gonorrhea in particular. Regardless of all of this excitement scientific medicine must not deviate from its mission of seeking the truth in all these matters. The author has done much in this volume to keep this view point in the fore-front. It is recognized that sulfanilamide is a significant contribution as a therapeutic agent in the treatment of gonorrhea but the author urges a conservative estimate of this remedy or its allied drugs until further experience is at hand. The book is

Closely approximates Human Milk in Proportions of Food Substances

THE cow's milk used for Lactogen is scientifically modified for infant feeding. This modification is carried out by the addition of milk fat and milk sugar. These additions are made in predetermined and definite proportions so that when Lactogen is properly diluted with water it results in a formula containing the nutritive substances —fat, protein and carbohydrates— in approximately the same proportions as in woman's milk. The wide differences between woman's milk and cow's milk insofar as the proportions of food constituents are concerned are thus adjusted.



No laity advertising. No feeding directions given except to physicians.

For free samples of Lactogen and literature, mail your professional blank to Lactogen Dept.

NESTLÉ'S MILK PRODUCTS, Inc.

155 East 44th Street...New York, N. Y.

highly creditable and the whole subject has been brought up to date in this third edition.

SURGICAL TREATMENT OF HAND AND FOREARM INFECTIONS: By A. C. J. Brickel, A. B., M. D., Departments of Anatomy and Surgery Western Reserve University. With 166 Text Illustrations and 35 Plates Including 10 in Color. Price $7.50. St. Louis, The C. V. Mosby Company, 1939.

This book is indeed a classic and compares very favorably with the great poineer work of Kanavel. Of course no one can understand clearly the basic principles involved in the treatment of hand and fore-arm infections without a profound knowledge of the anatomy of the parts. In this presentation the author and his co-workers have presented some unusually fine plates, numbering some fourteen. In addition there are numerous other illustrations all through the book, particularly of pathological entities and their treatment. Industrial surgery is now a great specialty in the United States but even so many thousands of general practitioners are called upon to treat these infections in their daily practice. The book can be recommended for their guidance most unreservedly.

HEALTH OFFICERS' MANUAL: By J. C. Geiger, M. D., Dr., P. H., Sc. D., LL. D., Director, Department of Public Health, City and County of San Francisco, California. 148 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1939. Cloth, $1.50 net.

This is a rather brief resume of the field it is intended to cover but it is clearly presented and should prove to be a valuable desk companion for anyone having to do with preventive medicine activities. It is a ready reference book and contains a great deal of important information.

PERSONAL AND COMMUNITY HEALTH: By C. E. Turner, A. M., ScD., Dr. P. H., Profession of Biology and Public Health in the Massachusetts Institute of Technology; Formerly Associate Professor of Hygiene in the Tufts College Medical and Dental Schools. Fifth Edition. St. Louis, the C. V. Mosby Company, 1939.

This book has been used by a great many schools and colleges as a text book for instructing their pupils in the needs and requirements of personal and community health. The fact that it has gone through five editions is proof of its value. It is not only serviceable as a text book but it is interesting and worthwhile reading material for the individual. The book opens up with a chapter on The Field of Hygiene, its importance, boundaries and chief subdivisions. Some of the other chapters which have been discussed in public health literature but to which the latest information has been added are Nutrition; Oral Hygiene; Hygiene of the Nervous System; Heredity and Health; Three Great Plagues; Maternal and Child Hygiene; School Hygiene; Control of Communicable Diseases and Industrial Hygiene. Anyone who is interested in improving the health conditions of their community or their own health will do well to read this volume.

The
VEIL MATERNITY HOSPITAL
Middletown, Delaware

Strictly Private.
Absolutely Ethical.

Open to Regular Practitioners.
Early entrance advisable.
Patients accepted at any time during gestation.

For Care and Protection of the
BETTER CLASS OF UNMARRIED
YOUNG WOMEN

Adoption of babies when arranged for. Rates reasonable. Located on the Delaware Division of Penna. R. R. twenty-five miles south of Wilmington, Delaware. Write for booklet.

THE VEIL
Box 204
Middletown, Delaware

When the baby travels there is no interruption in the feeding schedule. One airline alone fed 84 S. M. A. infants during the past three months.

THIS TRAVELING MAN EATS SMA

S.M.A. FEEDINGS ARE THE SAME EVERYWHERE

Whether S.M.A. is prepared in New York or California, or even enroute, the feedings are always the same—like breast milk.

In any climate, S.M.A. remains fresh and sweet, because it is nitrogen packed to prevent oxidation or change in its chemical and physical composition.

INFANTS RELISH S.M.A. — DIGEST IT EASILY — THRIVE ON IT!

S. M. A. is a food for infants — derived from tuberculin tested cows' milk, the fat of which is replaced by animal and vegetable fats including biologically tested cod liver oil; with the addition of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and in physical properties.

ACCEPTED AMERICAL MEDICAL ASSN. Council on Foods

S.M.A. CORPORATION • 8100 McCORMICK BOULEVARD • CHICAGO, ILLINOIS